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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MERED, HABTE

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/075,232

Applicant(s)

HSIAO, JU-FANG

Examiner

Habte Mered

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-17 are examined.

Specification

2. The disclosure is objected to because of the following informalities: The phrase "user end computer" needs to be replaced by the phrase "end-user computer" throughout the specification and claims as the latter phrase depicts a client computer in a client/server relationship. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-4, 6-11, and 13-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al (J. Zhang and M. Zhang, "Software Solution To Completely Wireless Presentation", 3-7 September 2001, IEEE), hereinafter referred to as Zhang, in view of Slobodin et al *US Pub. No. 2002/0196378), hereinafter referred to as Slobodin, and Estevez et al (US Pub. No. 2003/0017846), hereinafter referred to as Estevez, and Slipp et al (US 2005/0086325), hereinafter referred to as Slipp.

Zhang discloses a wireless presentation system with a session server, session organizer and presenters where the presenter can be any one of a plurality of laptops connected to the session server and the associated projector via wireless means.

Slobodin discloses a method and apparatus for wireless image transmission to a projector.

Estevez discloses an interactive codec (coder/decoder) capability for use in remote PC video application.

Slipp discloses computer-to-computer communication using TCP/IP protocol suites.

5. Regarding **claims 1 and 11**, Zhang discloses a wireless projection system with at least an end computer and a wireless projector box including a projector module for projecting data to a location desired and a server end computer linking the projector module for transmitting signal to and receiving signals from the end user computer in a wireless linkage fashion. **(See Sections 3, 3.1 and 3.2 and Figure 2)**

Zhang fails to disclose that the end user computer has various components such as an input module, a storage module, a temporary buffer, a bus system and a receiving/transmission module. Zhang also fails to disclose the various components of the server-end computer including a receiver/transmitter unit, a buffer, and a bus system interconnecting various modules.

Slobodin discloses an end-user computer in a wireless presentation system which includes at least an input module for entering data or commands **(Figure 2, 116)**; a first storage module for storing data **(Figure 2, 114 and 115)**; a first buffer for temporarily storing data **(Figure 2, 112 and 113)**; a first radio receiving/transmission module for transmitting or receiving radio signals **(Figure 2, 115)**; **(See Paragraphs 18 and 37)** a first processing module for linking the input module **(Figure 15, 701 and see**

Paragraph 68), the first storage module (**Figure 15, 702 and 703**), (**Figure 15, 702 and 703**) the user datagram protocol transmission module (**See Paragraph 70 – description on transport protocol – TCP/IP**), the first buffer, and the first radio receiving/transmission module for receiving and processing signals transferred from the input module, and retrieving data to be coded from the first storage module and transferring the data to be coded to the coding module to perform data coding, transferring the coded data to the user datagram protocol transmission module to package in packets, and transferring the packet data to the first buffer, and transferring the packet data individually to the first radio receiving/transmission module for emitting by radio signals(**See Paragraphs 68-71**)

Slobodin further discloses that the presentation projector 130 of Figure 2 may reside on a network server (**see Paragraph 72**) and describes a general purpose PC (**see Paragraph 68 and Figure 15**) where the server end computer including at least: a second radio receiving/transmission module for transmitting or receiving radio signals (**Figure 15, 726 and Paragraph 70**); a second buffer for temporarily storing data (**Figure 15, 702 and 703**); a decoding module for decoding data (**See Paragraph 71**); and a second processing module (**Figure 15, 701 and see Paragraph 68**) linking the second radio receiving/transmission module (**Figure 15, 726 and Paragraph 70**), the second buffer(**Figure 15, 702 and 703**), the user datagram protocol receiving module (**See Paragraph 70 – description on transport protocol – TCP/IP**), the decoding module(**See Paragraph 71**), and the projector module (**Figure 15, 726 and Paragraph 70**) for individually transferring packet data received by the second radio

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receiving/transmission module to the second buffer, and transferring the packet data from the second buffer to the user datagram protocol receiving module for repackaging in packets, and transferring the packet data to the decoding module for decoding, and transferring the decoded data to the projector module for projection. **(See Paragraphs 68-71)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Zhang's apparatus to incorporate a multimedia PC or laptop with various modules. The motivation being to come up with a truly wireless presentation system without the inconvenience of using physical cables as stated in Zhang on Page 459, Column 2, Lines 8-10 and in Slobodin in Paragraph 6.

Zhang fails to expressly disclose a coding module and a decoding module.

Estevez discloses a coding module and a decoding module. (See Paragraphs 8 and 23 and the description for a codec)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Zhang's apparatus to incorporate a multimedia PC or laptop with a Codec. The motivation being to come up with a truly wireless presentation system without the inconvenience of using physical cables as stated in Zhang on Page 459, Column 2, Lines 8-10 and in Estevez in the abstract and Paragraph 30.

Zhang fails to expressly disclose a UDP transmission mechanism.

Slipp discloses the interworking of TCP/IP and UDP protocol exchange between two computers **(See Figures 7 and 8 and Paragraphs 67 and 68)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Zhang's apparatus to incorporate UDP transmission mechanism. The motivation being to come up with a truly wireless presentation system without the inconvenience of using physical cables Zhang mentions the use of TCP/IP protocol suites on Page 462, 2nd Column, 1st Paragraph and Slipp further elaborates in Paragraphs 67 and 68.

6. Regarding **claim 2**, Zhang discloses a system wherein the data or the commands entered from the input module include registration data required for setting the server end computer or setting data for altering internal setting values of the wireless projector box. **(See Section 4.3)**

7. Regarding **claim 3**, Zhang discloses a wireless projection system, wherein the internal setting values of the wireless projector box selectively include Internet Transmission Control Protocol address or transmission mode. **(See Page 462, 2nd Column, 1st Paragraph)**

8. Regarding **claim 4**, Zhang discloses a wireless projection system, wherein the transmission mode of the wireless projector box selectively includes an infrastructure mode or an ad hoc mode. **(See Page 463, Section 5, 3rd Paragraph – His system discloses an ad-hoc wireless net)**

9. Regarding **claims 6 and 13**, Zhang discloses a wireless projection system, wherein the radio signals transmission between the first radio receiving/transmission module and the second radio receiving/transmission module includes an infrastructure

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mode for indirect transmission through a wireless network access point. **(See Section 3.2 and Figure2)**

10. Regarding **claim 7**, Zhang discloses a wireless projection system, wherein the wireless network access point connects at least one external network for transmitting packet data to the external network. **(See Section 3.2 and Figure2)**

11. Regarding **claims 8 and 14**, Zhang teaches all aspects of the claimed invention as set forth in the rejection of claims 1 and 11 but fails to expressly disclose a wireless projection system, wherein the input module includes keyboards, mouse devices, floppy disk drives or optical disk drives, the first storage module and the second storage module include hard disk drives or non-volatile memory; the first buffer and the second buffer include volatile memory, the first processing module and the second processing module include a central processing unit, and the projector module includes a liquid crystal display projector.

Slobodin discloses a wireless projection system, wherein the input module includes keyboards, mouse devices, floppy disk drives or optical disk drives, the first storage module and the second storage module include hard disk drives or non-volatile memory; the first buffer and the second buffer include volatile memory, the first processing module and the second processing module include a central processing unit, and the projector module includes a liquid crystal display projector. **(See Figure 2 and Paragraph 36 and Figure 15 and Paragraphs68-71)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Zhang's apparatus to incorporate a multimedia PC or laptop with various modules. The motivation being to come up with a truly wireless presentation system without the inconvenience of using physical cables as stated in Zhang on Page 459, Column 2, Lines 8-10 and in Slobodin in Paragraph 6.

12. Regarding **claims 9 and 15**, Zhang teaches all aspects of the claimed invention as set forth in the rejection of claims 1 and 11 but fails to expressly disclose a wireless projection system, wherein the coding module and the user datagram protocol transmission module are selectively obtained by direct entering from the input module to the end user computer or by means of radio transmission transmitting from the server end computer to the end user computer.

Slipp discloses a system, wherein the coding module and the user datagram protocol transmission module are selectively obtained by direct entering from the input module to the end user computer or by means of radio transmission transmitting from the server end computer to the end user computer. **(See Figures 7 and 8 and Paragraphs 67 and 68 – Every multimedia pc has some form of a coding module. The choice of the selection between the two modules is dependent on the application running on them such a for instance a simple text file transfer verses a video file.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Zhang's apparatus to incorporate UDP transmission mechanism. The motivation being to come up with a truly wireless presentation system

without the inconvenience of using physical cables Zhang mentions the use of TCP/IP protocol suites on Page 462, 2nd Column, 1st Paragraph and Slipp further elaborates in Paragraphs 67 and 68.

13. Regarding **claims 10 and 16**, Zhang teaches all aspects of the claimed invention as set forth in the rejection of claims 9 and 11 but fails to disclose that the end-user and server computers have various modules.

Slobodin teaches a wireless projection system wherein the coding module and the user datagram protocol transmission module are obtained through radio transmission from the server end computer to the user end computer, the server end computer including the second storage module linking to the second processing module, and the user end computer including the transmission control protocol transmission module and the transmission control protocol receiving module linking to the first processing module, wherein the second storage module is for storing data related the coding module and the user datagram protocol transmission module. **(See Figure 2 and Paragraph 36 and Figure 15 and Paragraphs 68-71. The system described by Slobodin is a multimedia system and has to have a Codec – i.e. coder/decoder)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Zhang's apparatus to incorporate a multimedia PC or laptop with various modules. The motivation being to come up with a truly wireless

presentation system without the inconvenience of using physical cables as stated in Zhang on Page 459, Column 2, Lines 8-10 and in Slobodin in Paragraph 6.

Zhang also fails to disclose that the transmission control protocol transmission module is for converting signals to transmission control protocol format signals for emitting; and the transmission control protocol-receiving module is for receiving the transmission control protocol format signals and converting to original signals.

Slipp discloses that the transmission control protocol transmission module is for converting signals to transmission control protocol format signals for emitting; and the transmission control protocol-receiving module is for receiving the transmission control protocol format signals and converting to original signals. **(See Figures 7 and 8 and Paragraphs 67 and 68. The limitation of this claim is met by any system that handles communications based on TCP/IP protocol of which both Zhang's and slipp's system adequately meet this limitation.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Zhang's apparatus to incorporate UDP transmission mechanism. The motivation being to come up with a truly wireless presentation system without the inconvenience of using physical cables Zhang mentions the use of TCP/IP protocol suites on Page 462, 2nd Column, 1st Paragraph and Slipp further elaborates in Paragraphs 67 and 68.

15. Regarding **claim 17**, Zhang teaches all aspects of the claimed invention as set forth in the rejection of claim 16 but fails to disclose that the end-user and server computers have various modules with various functionalities.

Slobodin teaches, wherein the server end computer transmits data related to the coding module and the user datagram, protocol transmission module in a wireless transmission fashion to the user end computer, and includes the following steps: entering loading request signals for the coding module and the user datagram protocol transmission module to the user end computer; transforming the loading request signals to transmission control protocol format signals; transferring directly the transmission control protocol format signals in an ad hoc transmission mode **(See Paragraph 13)** from the first radio receiving/transmission module to the second radio receiving/transmission module; transferring the transmission control protocol format signals to the second processing module; retrieving from the second storage module data related to the coding module and the user datagram protocol transmission module by the second processing module based on the received transmission control protocol format signals; transmitting directly the data related to the coding module and the user datagram, protocol transmission module in an ad hoc transmission mode. **(See Paragraphs 68-71)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Zhang's apparatus to incorporate a multimedia PC or laptop with various modules. The motivation being to come up with a truly wireless presentation system without the inconvenience of using physical cables as stated in Zhang on Page 459, Column 2, Lines 8-10 and in Slobodin in Paragraph 6.

Zhang further fails to disclose transmitting at transmission control protocol formats from the second radio receiving/transmission module to the first radio

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receiving/transmission module; converting the transmission control protocol format signals received in the first radio receiving/transmission module to original signals; and establishing the coding module and the user datagram protocol transmission module in the user end computer based on the converted original signals.

Slipp discloses transmitting at transmission control protocol formats from the second radio receiving/transmission module to the first radio receiving/transmission module; converting the transmission control protocol format signals received in the first radio receiving/transmission module to original signals; and establishing the coding module and the user datagram protocol transmission module in the user end computer based on the converted original signals. **(See Figures 7 and 8 and Paragraphs 67 and 68. Since the system described by both Slipp and Zhang are using multimedia pc they have to have a codec or a video card. The limitation of this claim is met by any system that handles communications based on TCP/IP protocol of which both Zhang's and slipp's system adequately meet this limitation.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Zhang's apparatus to incorporate UDP transmission mechanism. The motivation being to come up with a truly wireless presentation system without the inconvenience of using physical cables Zhang mentions the use of TCP/IP protocol suites on Page 462, 2nd Column, 1st Paragraph and Slipp further elaborates in Paragraphs 67 and 68.

14. **Claims 5 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of Slobodin and Estevez and Slipp as applied to claims 1 and 11

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above, and further in view of Chang et al (US Pub. No. 2002/0083121), hereinafter referred to as Chang.

Chang describes wireless peer-to-peer or point-to-point communication.

The combination of Zhang and Slobodin and Estevez and Slipp teach all aspects of the claimed invention as set forth in the rejection of claims 1 and 11 but does not disclose a wireless projection system wherein the radio signal transmission between the first radio receiving/transmission module and the second radio receiving/transmission module includes an ad hoc mode for direct transmission.

Chang discloses a wireless projection system wherein the radio signal transmission between the first radio receiving/transmission module and the second radio receiving/transmission module includes an ad hoc mode for direct transmission.

(See Paragraphs 2 and 105)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Zhang's and Slobodin and Estevez and Slipp apparatus to incorporate ad-hoc transmission mechanism. The motivation being to come up with a truly wireless presentation system without the inconvenience of using physical cables Zhang mentions the using an ad-hoc wireless net as stated in Page 463, Section 5, 3rd Paragraph, and further elaborated in Chang in Paragraph 105. Further motivation is stated in Chang in Paragraphs 5 and 6 why ad-hoc communication will be needed for such routine tasks as printing a presentation from the wireless laptop or pda.

Conclusion

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15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following US Patent is cited to show the state of the art with respect to UDP and TCP receiver/transmitter:

US Patent (6, 940, 819) to Kato

Kato discloses an Internet enabled apparatus with capability to handle video transmission using UDP/TCP transmitters and receivers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Habte Mered whose telephone number is 571 272 6046. The examiner can normally be reached on Monday to Friday 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571 272 3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


HM

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A handwritten signature in black ink, appearing to read 'Hassan Kizici', is written over the printed name.

HASSAN KIZICI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600